In the Claims:

1. (Currently Amended) A method for generating a look-ahead envelope defined, in part by detection offsets for use by an enhanced ground proximity warning system in an aircraft, the method comprising:

providing a terrain database;

receiving a positional fix;

determining a database resolution at the positional fix, wherein the positional fix includes at least one of a positional uncertainty value, a distance to nearest runway value, or a logical signal indicating a low-altitude flight condition;

receiving a ground track;

generating a look-ahead envelope based on the received positional fix, data base resolution, and the received heading, wherein generating comprises determining detection offset of the look-ahead envelope based on at least one of the positional uncertainty value, the distance to nearest runway value, or the logical signal indicating a low-altitude flight condition.

2. – 3. (Canceled)

4. (Currently Amended) The method of Claim [[3]]1, wherein generating comprises generating a series of detection sub-offsets based on the value for positional uncertainty.

5. (Canceled)

6. (Currently Amended) The method of Claim [[5]]1, wherein generating comprises generating a side span value based on the distance to nearest runway.

7. (Canceled) The method of Claim 1, wherein receiving a positional fix comprises receiving a logical signal indicating a low-altitude flight condition.

8. (Currently Amended) The method of Claim [[7]]1, wherein generating comprises generating a side span value based upon the presence of the logical signal indicating a low-altitude flight condition.

9. (Currently Amended) The method of Claim [[7]]1, wherein generating comprises determining the detection offset based upon the presence of the logical signal indicating a low-altitude flight condition.

10. (Currently Amended) The method of Claim [[7]]1, wherein generating comprises generating a series of detection sub-offsets based upon the presence of data base high-resolution.

11. (Currently Amended) An enhanced ground proximity warning system in an aircraft comprising:

a data bus configured to receive information from navigational instrumentation including a global positioning system; and

a look-ahead component configured

to receive a positional fix and a ground track from the data bus, wherein the positional fix comprises at least one of a measure of positional uncertainty or a logical signal indicating a low-altitude flight condition;

to generate a look-ahead envelope defined, in part, by:

detection offsets ; and

side span angles,

wherein the look-ahead component generates the detection offsets based upon at least one of the measure of positional uncertainty, or the presence of a logical signal indicating low-altitude flight condition.

12. – 15. (Canceled)

16. (Currently Amended) The system of Claim [[14]]11, wherein the look-ahead component gencratcs a series of deteetion sub-offsets based upon the presenee of [[a]] the logical signal indicating low-altitude flight condition.

17. (Currently Amended) An enhanced ground proximity warning system in an aircraft comprising:

a means for conveying data from navigational instrumentation ineluding a global positioning systcm; and

a mcans for generating a look-ahcad envelope based upon

a positional fix reeeived from the mcans for conveying data; and

a heading received from the means for conveying data,

wherein the means for generating a look-ahead envelope further bases that envelope upon at least one of a measure of positional uncertainty or a logical signal indicating a low-altitude flight condition received from the mcans for eonveying data.

18. – 19. (Canceled)

20. (Currently Amendcd) A computer program produet for use in an aircraft eomprising:

a register for reeeiving navigation data comprising:

a positional fix of the aireraft; and

a ground track of the aireraft; and

at least one of a positional uneertainty valuc or a logical signal indicating low-altitude flight;

a look-ahead eomponcnt configured to generate a look-ahead envclope based on the positional fix of the aireraft and the heading of the aireraft, whcrcin a width of the

look-ahead envelope is based upon the detection offset value, wherein the look-ahead component is configured to generate the detection offset value based upon at least one of the positional uncertainty value or the logical signal indicating low-altitude flight;

a database component comprising stored elevations of terrain stored in association with a terrain location for locations along an anticipated flight path;

an alert component configured to determine if an alert condition exists based on the generated look-ahead envelope and the stored elevations of terrain.

21. – 23. (Canceled)

24. (Currently Amended) The product of Claim [[23]]20, wherein the look-ahead envelope is further defined by a side span value wherein a splay of the look-ahead envelope is based upon the side span value.

25. (Original) The product of Claim 24 wherein the look-ahead component selects a side span value based on the presence of the logical signal indicating low-altitude flight.

26. (Currently Amended) The product of Claim [[21]]20, wherein the look-ahead envelope is further defined by a side span value and wherein the look-ahead component generates a side span value.

27. (Original) The product of Claim 26, wherein the database further comprises locations of runways and wherein the look-ahead component is configured to:

compare stored locations of runways to an aircraft instantaneous position;

select a nearest runway based upon the compared locations of runways;

calculate the distance to the nearest runway value; and

generate the side span value further based upon the distance to nearest runway value.